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ABSTRACT

During the last few years the research enterprise dealing with the status projections of youth, and in particular, the numerous empirical studies focusing on occupational aspirations and expectations, has increasingly come under criticism within the sociological community. The paper acknowledges the criticism directed toward projection research as generally valid and attributes the difficulties to the lack of agreement on an adequate sociological model. The main thrust of the paper is to construct a cumulative model of the selection process that is both a reaction to, and product of, some of the more obvious weaknesses in projection research. This cumulative model incorporates a restructured concept of "occupational choice" in the form of a six component typology of occupational orientation identified as: specific (+) versus diffused (-), desirable (+) versus undesirable (-), anticipated (+) versus unanticipated (-), realistic (+) versus unrealistic (-), high motivation (+) versus low motivation (-), and adequacy (+) versus inadequacy (-). Developmental patterns along with differing configurations of orientations are viewed as key variables for analysis. The paper concludes with questions for future research and a bibliography. (Author/MW)

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THE OCCUPATIONAL SELECTION PROCESS: THE ARGUMENT FOR A CUMULATIVE MODEL

by

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Introduction

The purpose of this paper is to present a cumulative occupational selection model as an alternate to existing approaches to the analysis of status projection. This cumulative model incorporates a restructured concept of "occupational choice" in the form of a six component typology of occupational orientations. Developmental patterns along with differing configurations of orientations are viewed as key variables for analysis. This model is designed to provide a more systematic and hopefully powerful research tool, yet remain consistent with the applied goals of projection researchers.

During the last few years the rather extensive research enterprise dealing with the status projections of youth and in particular, the numerous empirical studies focusing on occupational aspirations and expectations, has increasingly come under considerable criticism within the sociological community. The criticism which have come from projection researchers, as well as other interested individuals, include a wide array of serious charges that bring into question not only the theory and methods of projection research, but also its very social worth. The gravity of these charges, especially in view of the years of research effort, certainly signals the need for an evaluation of projection research and perhaps the need for extensive restructuring of the general approach.

The position taken in this paper is that many of the numerous criticisms directed toward projection research are in large part valid and that the difficulties stem primarily from one source -- the lack of agreement on an adequate sociological model. The main thrust of this paper is to construct a cumulative model of the selection process that is both a reaction to, and product of, some of the more obvious weaknesses in projection research. The goal is not to present a grand theory of occupational selection but rather: (1) to hopefully stimulate theoretical interest in a research area that has been largely characterized by descriptive analysis; (2) to provide a developmental sociological alternative to other modes of explanation; and (3) to provide a framework that shifts the focus of projection research from a search for correlates

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of aspiration levels to the more "relevant" concerns of differential patterns of development, the effects of structural disparity in opportunities, the configuration of projection, and the related effects on actual occupational attainment.

Present Theory or the Lack of It

Most sociological research reports, and in particular, those conducted by rural sociologists specializing in occupational studies, have tended to be primarily descriptive in nature and more often than not appear to have neither originated from, been guided by, or have contributed to any form of sociological theory in a systematic manner. William P. Kuvlesky (1969), the noted authority, has made the very similar observation in his extensive review and systhesis of projection research -- in that few reports in this area "have been evolved from or been related to the mainstream of sociological or any other kind of theory." This is not to say that many existing theoretical works have no direct relevance or application for the sociological study of projections but rather that sociological researchers studying projection have failed to construct their own general models; have failed to adapt existing general sociological theories to their research, and have failed to borrow and restructure some of the more general theories of occupational development from other disciplines.

At this point in the discussion, two promising recent developments among projection researchers should be recognized. Walter L. Slocum, long a leader in this area, has recently directed his efforts toward the construction of a general systems model of occupational development much in the tradition of the systematic theories of general sociology. An initial and somewhat tentative statement of Slocum's efforts was presented at the 1970 RSS meetings in Washington. Taking a much different approach, William P. Kuvlesky has for sometime been attempting to develop a systhesis of empirical projection findings. Although Kuvlesky has been able to produce perhaps the best reviews of projection research (e.g., see Kuvlesky and Pelham, 1966; Kuvlesky and Lever, 1967; and Kuvlesky, 1969), he has had considerable difficulties, largely as a result of the rather large inconsistencies in operational and reporting procedures, in arriving at even low-level proposition.

The aforementioned lack of theoretical activity, excepting the recent contributions of Slocum and Kuvlesky, is especially surprising when one considers that the general theories of the behaviorist Ginzberg (1951) and the psychologists Super (1953, 1957) and Holland (1966) have long been known to projection researchers. Furthermore, the more recent works of Musgrave (1967) and Rodgers (1966) have received little attention. Also, numerous empirical researchers, for example, Kuvlesky, Picou, and Curry have suggested that certain aspects of Merton's functionalism might provide a highly fruitful framework for projection analysis. Although there are numerous theoretical approaches available that appear to have some bearing on projection research and the above list is far from complete, seldom have they been systematically utilized in actual sociological research.

The question immediately comes to mind, "Why, in a discipline such as sociology which usually has a built-in predisposition for theorizing, should researchers in an area of intense interest such as projection research fail to produce their own theory?" The answer, or at least a partial answer, seems to lie not only with the nature of the projection phenomena but also with (1) recent theoretical trends in general sociology; (2) the "type" of researchers who have tended to research this area; and (3) the tendency to substitute methodological sophistication for substantive gains. These topics will be only briefly discussed in the following sections.

The Developmental Nature of Occupational Projections and Recent Sociologies

A characteristic and primary assumption underlying occupational projection models, especially those developed in the tradition of Ginzberg and Super, is that occupational projections are essentially developmental. That is to say, that occupational projections (choices, orientations, selections, plans, aspirations, and expectations) are essentially a process phenomena with the process starting early in a child's life and continuing well into the adult years. Furthermore, the nature of the choice process is viewed as a cumulative product of prior influence as well as current circumstances. If agreement can be reached with respect to this key assumption, that occupational projections are essentially developmental, it follows that projections can best be understood and researched in terms of a developmental model. Having made this assumption concerning the nature of projection, it can be seen that the bulk of the research was being conducted during a period (the decades of the fifties and sixties) when the major theoretical advances and activities of general sociology were with functional, systemic, and casual approaches. None of these approaches lend themselves readily to developmental explanation. Furthermore, the functional and systemic approaches have usually focused on either societal or other large-scale organizations as the chief unit of analysis rather than individuals or aggregates of individuals which appears to be the appropriate units for projection research. Admittedly, the foregoing brief and hardly adequate discussion of the appropriateness of the current systemic and functional approaches is necessarily conjectual but to further elaborate the position would only serve to redirect the discussion from projections to a lengthy analysis of the relative merits of general sociologies.

Concept Development

The lack of general theoretical activity in projection sociology is equaled only by the intensity of concern for conceptual development. In addition to Haller and Miller's (1963) classic study of the concept "level of occupational aspirations" reported in The Occupational Aspiration Scale, numerous related conceptual refinements and innovations have been produced by researchers in this area, some of whom are present today.

Among these conceptual refinements, we find such formulations as the clarification of the concept 'occupational choice' (Kuvlesky and Bealer, 1966; Oberle and Campbell, 1970; and Picou and Curry, 1971); anticipatory goal defection (Kuvlesky and Ohlendorf, 1966; Nunallee and Drabick, 1966; and Cosby, 1966); values and occupational choice (Schwarzweller, 1960); facilitating valuation (Oberle and Campbell, 1970); specification (Kuvlesky and Jacob, 1969); and means centering and goal blockage (Cosby, 1969). An unfortunate aspect of this concept development and even more so of the empirical efforts has been a preoccupation with the aspirational-expectational components of occupational selection and the neglect of the non aspirational-expectational aspects of the general choice process. The trend has been to take the concepts of occupational aspirations and expectations, which are of questionable value as key explanatory factors in the overall selection process, and to make even finer conceptual distinctions. This has without doubt increased the understanding of aspirations and expectations but probably has resulted in only slight gains in the knowledge of the selection process.

There appears to be yet another feature of many conceptual explanations in projection research that will, in all likelihood, be a source of much disagreement. These explanations, or at least, the earlier works appear to have a "middle class" concept of success as an underlying theme. This "middle class bias" rests on two common sense notations that have long been characteristic of white middle class America: (1) occupational (and educational) opportunities are equal or nearly equal to all and (2) that those who obtain high level occupations (or education), do so because of their high aspirations and motivations which allow them to take advantage of the opportunities. These assumptions are clearly inconsistent with present sociological knowledge concerning attainment among disadvantaged and minority groups which are critical populations for projection research.

Although few present-day projection researchers would defend the two above assumptions without considerable reservations, there does seem to be a latent effect, e.g., it is still not unusual to find in projection research such terminology as "climbing the occupation ladder." Perhaps this tendancy to retain a "middle class" concept of occupational attainment can partially be understood by looking into the background of some projection researchers. Although there are few, if any, biographies available, on an informal basis there are some perceivable similarities in mobility patterns. Many of these researchers were reared in rural or small town depressed areas and who through their striving probably overcame very real hardships and handicaps in order to obtain their present occupational and educational status. The midwest farmlands of the depression era, the coal fields of Pennsylvania, the hills of Appalachia, and the swamps of Acadian Louisiana have all produced one or more scholars who have specialized in projection research. Could it be possible that these men were using their own achievement pattern as an implicit model of occupational achievement?

Finally, the argument being set borth is that projection researchers have carried out their investigations without the benefits of a general conceptual model of occupation selection and that their research has suffered greatly as a result. This lack of agreement on a central model has led to a redundancy in projection research that far exceeds the requirements of scientific repetition, i.e., the same questions have been asked more than once too often. The situation can perhaps best be characterized by a remark heard at the youth section of the last RSS meetings, "Oh my god! Not another aspiration study."

In the following section of this paper, a cumulative model of the selection process is presented along with a typology of occupation orientations. The two constructs are not viewed as a finished theoretical product but rather as a working model for sociological research. The utility of the model is, of course, an open question that can be answered best by its application, but one thing does appear certain, it does redirect the focus of projection research and suggests a much different set of questions than those presently being asked.

A Typology of Occupational Orientation: A Central Device

The general organizing concept under which the various occupational projection variables can be subsumed is referred to in the present outline as occupational orientations. This multi-dimensional phenomena can be broadly defined as an actor's overall predisposition toward an occupation object at a particular point in time. Obviously, this rather vague definition is hardly adequate for empirical research purposes. In order to elaborate on the nature of what is meant by occupational orientation, a typology may be used. Typification in this case consists of focusing attention on the more relevant dimensions or components of the concept and disregarding those aspects which are not relevant to the selection process. This produces an heuristic typology of occupational orientations that is designed in such a manner that components can be deleted or added as research requirements change.

Table 1. Components of the Occupational Orientation Typology[a]

C1	Specify (+) versus Diffused (-)
C2	Desirable (+) versus Undesirable (-)
C3	Anticipated (+) versus Unanticipated (-)
C4	Realistic (+) versus Unrealistic (-)
C5	High Motivation (+) versus Low Motivation (-)
C6	Adequacy (+) versus Inadequacy (-)

[a]This table contains six dichotomous components of the occupational orientation concept. The "C" notation in the left hand column used in conjunction with the (+), (-) and (θ) (for the null) provides a shorthand system of representing various configurations of components. For example, C4 (+) represents the certainty state of the C4 component. To construct combinations, the logical and symbol ⊕ and the logical or ⊖ can be used.

C1 Specific versus Diffused: By definition, the concept of occupational orientation consists of three parts, i.e., an actor, an occupational object, and a predisposition toward the occupational object. The distinction being made here is that some individuals tend to view occupational objects and especially occupational goals in a specific and well defined manner, while others tend to be much more ambiguous tending to view occupational objects in wide groupings. Kuvlesky and Jacob (1969) report the construction of a scale to measure specificity and its application in a study of high school sophomores. A concrete example of this distinction would be the contrast between the high school student who expects to become a high school history teacher in his hometown school with another student who expects to enter some type of "white collar" occupation. Although this distinction in the nature of orientation is rather obvious and needs little elaboration, it should be noted that in most projection studies, two such different responses would be classified in the same level of expectation categories and thus be treated as like phenomena.

C2 Desirable versus Undesirable. This dichotomy closely corresponds to the kinds of variable that is commonly referred to as occupational aspirations. Given any occupational object that is known to the individual, it can be expected that he would regard the object as either favorable or unfavorable with respect to his entering the occupation. There is, however, one primary difference between this component and the typical usage of the occupational aspiration concept, i.e., in the source and range of occupational objects that are applicable. The objects for analysis in most aspiration studies are usually restricted to objects obtained from some sort of stimulus that asks the actor to select that occupational object which he would most desire as his life's work. (The LOA scale developed by Haller and Miller 1963 represents a notable exception.) The C2 component and the entire typology can be used to analyze not only the aspirational type object, but also hypothetical objects that originate from the researcher or even the social structure. For example, such large scale organizations as the various branches of the Armed Forces obtain the service of a large number of individuals that must be placed or assigned to various occupational categories. In such situations, there is occupational selection, without any occupational choice in the classic sense. However, in this situation the occupational orientation typology applies (we have an occupational object, an actor and a predisposition) and could be utilized. The point is that the use of the typology is not limited to aspirational and expectational phenomena.

C3 Anticipated versus Unanticipated: This component refers to the individual's expectations of the likelihood of his obtaining or entering a particular occupational object or cluster of objects. It is based on both the individual's self-evaluation of his ability and skill and also his evaluation of the opportunities and operation of the occupational structure.

C4 Realistic versus Unrealistic: This dichotomy is probably the most difficult of the six components to define. It is based on an idea that is very similar to the notion of "goodness of fit" or that the general occupational orientation "fits" the external occupational structure. There are several approaches to this problem that come to mind -- each with its limitations. First, the researcher or a panel of judges could make an estimation of the realism of the orientation. Second, if the object of the orientation is a goal or expectation, a measure of projected class mobility could be used as an index of realism. This procedure would seem to have some validity for large groups of individuals but would be tenuous for single cases. Third, peers, parents, or teachers could be used to judge the realism of the orientation. Unfortunately, each of these designs would at best provide only rough estimates.

C5 High Motivation versus Low Motivation. This dichotomy refers to propensity of an individual toward actions that are meaningfully related to the occupational object. The component is both indicative of the commitment to the occupational object and the intensity of the general occupational orientation.

C6 Adequacy versus Inadequacy: Here the emphasis is on the individual's possession of attributes, education, skills, and intelligence that are required by the occupational object. The nature of the appropriate index, of course, depends on the occupational object being considered. (See Table 2 for operational procedures.)

Component Configuration and Set Notation

A large number of configurations (component variations) can be generated from the typology by combining the various states of the components. These configurations represent theoretically possible kinds of occupational orientations that can be constructed from the typology's six components. It should be noted that even with the present relatively simple typology, sixty-four unique submodels can be derived (even if the null cases are not considered). To further illustrate the power of such constructs (power as the capability to generate lower level constructs), the components can be reconceptualized as consisting of continuous variables rather than as discrete polar types. This reconceptualization would result in greatly increasing the power of the construct but would also create some serious methodological problems. The typological approach was selected over alternate made of theory construction because

Table 2. The Six Suggested Components of the Occupational Orientation and Tentative Modes of Operations

Component	Component Status	Operations (Suggested)
C1	Specific (+) versus Diffused (-)	Occupational Status Projection Specialist Scale (Kuvlesky and Jacob, 1969). Relatively simple, direct questions concerning the industry, enterprise, status level, location of job, and time of entrance.
C2	Desirable (+) versus Undesirable (-)	An occupational rating scale, perhaps along the lines of Haller and Miller's Level of Occupational Aspirations Scale (1963) could be devised. Of course, the expectational items would be deleted. Also, the open-end aspiration stimulus that has been used by the S-61 research group could also be used.
C3	Anticipated (+) versus Unanticipated (-)	A rating scale similar to the one suggested for the aspirational component could be used where expectational items are substituted for aspirational items. Again, the open-end stimulus can be used.
C4	Realistic (+) versus Unrealistic(-)	Three approaches could provide estimates: (1) a "subjective" evaluation by the researchers as a panel of judges; (2) an evaluation of the actor's choice by his peers, teachers or family; and (3) a measure of his projected class maturity, i.e., that wide difference between projected status and present family status is an indication of unrealistic orientation.

Table 2. (cont'd)

Component	Component Status	Operations (Suggested)
C5	High Motivation (+) versus Low Motivation (-)	Projective technique such as those utilized by McClelland in his study of Achievement Motives might prove useful here. Also an index of prior orientational related actions would serve as a measure of motivation.
C6	Adequacy (+) versus Inadequacy (-)	Many of the widely used aptitude, achievement and intelligence tests would be used here (depending on the requirements of the occupational object).

it was considered to have sufficient explanatory power, to have relatively few methodological problems, and to provide a general organizing model that can be quickly adopted or restructured in line with research findings. A shorthand set of notations are used to indicate the nature of the configuration where the general case is:

$$C1(i) \oplus C2(j) \oplus C3(k) \oplus C4(l) \oplus C5(m) \oplus C6(n)$$

Where:

C1 = Component 1 (specific - difused)
i = values , -, or ∅ (null) See Table 1.
⊕ = logical and statement

Using this system we can redefine some of our projection concept.

Occupational Aspirations = $C1(i) \oplus C2(+) \oplus \ldots \oplus C6(n)$
(Thus there are 32 configurations of aspirations to consider.)

Occupational Expectations = $C1(i) \oplus C2(j) \oplus C3(+) \oplus \ldots \oplus C6(n)$
(Likewise, there are 32 expectational configurations.)

Anticipatory Goal Deflection = $C1(i) \oplus C2(+)\ C3(-) \oplus \ldots \oplus C6(n)$

or

$C1(i) \oplus C2(-) \oplus C3(+) \oplus \ldots \oplus C6(n)$

Specificity of Choice = $C1(+) \oplus C2(j) \oplus \ldots \oplus C6(n)$

It becomes immediately apparent that of the many possible submodels, only a few have been conceptualized and researched. There are obviously many promising areas for further conceptualization and research -- the typology suggests that the research area has hardly been researched rather than over-researched as some have implied.

A further use of this set theoretic notation is the formalization of the relationships between the components and logical operators. Certain combinations of component states might be found to mutually counteract one another and can be ignored in any derived notation. Mathematical research contains a wealth of "proven" relationships in set theory provided the components and operators obey certain fundamental laws. Research could empirically determine if these laws do in fact hold and subsequently the powerful tool of set theory could be applied to projection research.

Submodels and Clustering

Since the general typology generates a large set of hypothetical submodels, some of which have no empirical referent and are purely an

artifact of the method of construction, a means of selection and deletion is needed. The value of the typology, of course, lies with the selection of those submodels that lead to gains in the understanding and prediction of occupational development. One approach already being investigated by a research associate, John Lenz, is the feasibility of adopting a computer assisted clustering design to this problem. This technique has the advantage of not only identifying clusters of components and submodels but also the strength (the radius expressed in terms of normalized units) of the clustering. By using such a clustering procedure, a reduced set of empirically derived submodels can be obtained as key variables for analysis.

Typology Utilization: The Prediction of Occupational Attainment as an Example

As one example of the utilization of the typology, we can turn to a critical research problem that has recently gained increasing attention among projection researchers, i.e., the relationship between occupational aspirations of youth and their subsequent level of occupational attainment. Studies by Kuvlesky and Bealer (1967) and Portes, Sewell and Haller (1968) indicate that the aspiration variable has only weak to moderate predictability. When one considers that socio-economic status in all likelihood would have resulted in as high, if not higher, correlations with attainment levels, the value of using only one status projection component can be questioned. Application of the orientation typology to his problem of prediction suggests a different approach -- possible with considerably more power. It can be assumed that among certain groups of students, because of the realism and stability of their projections, that high degrees of prediction are possible. Second, among other groups because of the highly variable and unrealistic nature of their projections, that prediction is very difficult. Selected submodels of the typology can be used to point to groups of high predictability and to those of low predictability.

Submodel of Highest Predictability: C1(+) ⊕ C2(+) ⊕ C3(+) ⊕ C4(+) (⊕) C5 ⊕ C6 ⊕

The configuration of the submodel of highest prediction, of course, would be determined by including in the submodel those levels of the components which individually would appear to increase the likelihood of the individual entering the particular occupational goal. Seemingly, this submodel would consist of the following component states: C1(+) specific, C2(+) desirable, C3(+) anticipated, C4(+) realism, C5(+) high motivation and C6(+) adequacy. It would be expected that the aspiration levels during high school would be highly predictive for this group.

Models of Moderate Prediction: C1(i) ⊕ C2(+) ⊕ C3(i) ⊕ C4(+) ⊕ C5(i) ⊕ C6(+)

There are several submodels which a moderate degree of prediction can be achieved. In these submodels only part of the components are in the

positive states. Three of the components states that probably should be included are: C2(+) desirable, C4(+) realism, and C6(+) adequacy.

Model of Lowest Prediction: C1(-) ⊕ C2(+) ⊕ C3(-) ⊕ C4(-) ⊕ C5(-) ⊕ C6(-)

The submodel of lowest prediction consists of those component states (with the exception C2(+)) where the states are in the opposite direction of those in the highest model. Such individuals, whose occupational aspirations can be characterized as unrealistic, diffused, unanticipated, low or negative motivational context and inadequate, certainly compose a group whose pattern of occupational attainment is, at best, uncertain. Of course, the determination of the unpredictability of occupational attainment among a given aggregate is in itself a form of prediction.

Developmental Patterns: The Dynamics of Occupational Status Projections

Although there is general consensus on both the developmental nature of occupational orientation and the significance of projection dynamics for status mobility, researchers have largely neglected the topic and relatively little empirical knowledge exists to test developmental propositions (Kuvlesky 1969). Furthermore, relatively few longitudinal or quasi-longitudinal designs have been utilized and when developmental models have been applied, statements about dynamics have been limited to changes during the 10th, 11th, and 12th grades (Boyd and Lytle, 1970). Practically no attention has been devoted to the earlier years. The state of the knowledge of projection dynamics is surprisingly conjectural considering the years of research. In fact, little knowledge has been gained since the early theories of Ginzberg (1951) and Super (1953), and these theories have not been adequately researched. The following statements outline some of the general notions.

(1) Occupational choice is seen as a process and is treated in a developmental framework. The choice process starts early in a child's life and continues into the adult years. Occupational choice is a product of prior influences as well as current circumstances. (Ginzberg, 1951; Super 1953).

(2) The importance of differential socialization in forming the occupational role of the individual is also stressed. The manner in which the individual is socialized in the family setting determines, in large part, the individual's concept of acceptable occupational roles and goals. Socialization in the school, in peer groups, among family associates, and in work experiences is seen as a contributing factor.

(3) Stages in the choice process can be distinguished where the quality of the choice varies according to the stage of the development. Ginzberg discusses the fantasy stage (pre-adolescent), the tentative

stage (adolescent), and the realistic stage (late adolescent and earlier adulthood). Generally, as the child moves from stage to stage in the choice process, his occupational choices become more focused, and often there is a narrowing of the range of acceptable occupations and his commitment to a particular occupational goal may increase. (Ginzberg, 1951)

(4) At various periods in the choice process, different types of choice can be delineated. Although there is considerable lack of agreement on appropriate terminology and perhaps conceptual differences, at least two dimensions of choice can be distinguished. First, there are occupational aspirations where the individual's choice of a particular occupation is one he wishes or desires to enter as his life's work. Second, there are occupational expectations where the student's choice of a particular occupation is one he expects or anticipates entering as his life's work. (Blau, 1956; Glick, 1962; Kuvlesky and Bealer, 1966).

(5) In the pre-adolescent years, the child selects those occupations that he perceives as being pleasurable. The choices are thought to be generally variable, quite often high in status, and often unrealistic in terms of the actual occupation which the individual will enter when he becomes an adult. Furthermore, the choices at this period can be characterized as being "goal centered" with little or no concern for the means required to obtain the given occupation. (Ginzberg, 1951).

(6) During the adolescent years, the choices become more tentative. The range and type of desired and expected occupations are greatly narrowed. The individual now becomes concerned with the means required to obtain a particular occupational goal.

(7) As the individual considers the necessary means required to obtain his occupational choices, he may perceive obstacles or blocks which he views as limiting or obstructing his chances to obtain his earlier "goal centered" choices. If the individual believes the blocks to be great, he will tend to lower his occupational choices. Furthermore, the severity of blockage should vary according to actual occupational disparity in the social situation.

(8) One group of potential blocks is referred to as structural disparity. These are groups which have had relatively limited success in attaining or access to higher level positions in the occupational structure. These are potential blocks in that the student must become aware of the disparity and view it as limiting his occupational chances.

Questions for Research

The foregoing outline suggests more questions than it answers. A few of these are listed because each represents a significant topic for possible research.

1. When are occupational labels first perceived by the child? What are the socio-economic variation in label acquisition? Does the early acquisition result from contact with the mass media or from contact with parents and playmates? How many occupational labels does the pre-school child know?

2. When is the knowledge of the occupational stratification system first acquired? What factors play the major role? How does the child's image of the occupational rankings correspond to the overall stratification system at various stages in the selection process?

3. What number of stages of occupational selection have the greatest ability for projection research? What is the nature of these stages? At what stages do the processes of goal centering and mean centering have a significant effect on occupation orientation? What are the effects of disparity on opportunity perception?

4. What are the patterns of aspirational change? Expectational change? Do occupation orientation become more realistic over time? Do they become more specific? Are the trends gradual or are there sharp changes?

5. What are the model configurations of the orientation typology at various stages? At what stage does motivation play a major role? How does adequacy effect aspiration and expectation levels?

6. How do the patterns of development vary according to subpopulations with our society? Are the developmental patterns of disadvantaged youth markedly different from other segments? Are developmental patterns better prediction of attainment than orientation states?

Summary

The foregoing discussion has centered around numerous topics dealing with weakness and difficulties of projection research along with some outlines for alternate approaches. The formulations are presented not as finished theoretical products but rather as working models for research. Also it is apparent that the outline tended to generate more questions than answers pointing to projection development as a critical area for future research.

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